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VIA ELECTRONIC FILING

<https://www.regulations.gov> (IRS and REG–117631–23)

The Department of the Treasury

Room 5203

Internal Revenue Service

P.O. Box 7604, Ben Franklin Station

Washington, DC 20044

RE: Section 45V Credit for Production of Clean Hydrogen, Notice of Proposed Rulemaking, 88 Fed. Reg. 89,220 (Dec. 26, 2023)

Hornblower Energy respectfully submits comments on the proposed rulemaking relating to the production tax credit (PTC) for the production of clean hydrogen as established and amended by the Inflation Reduction Act of 2022.

Background. Hornblower is not a big energy or fossil fuel company, but an environmentally conscious maritime industry company attempting to demonstrate the feasibility, including the commercial viability, of using gaseous hydrogen as a fuel in maritime.

Having successfully executed many industry-first green tech propulsion advancements over the last two decades, we believe that hydrogen holds great promise across a wide variety of potential use cases in the passenger maritime industry.

We are prompted to submit this comment letter out of concerns that certain proposed language in 45V may have the unintended consequence of squelching the kind of smaller, innovative projects like ours (more information below) that we believe can play a critical role in spreading the use of hydrogen throughout the economy, especially within change-resistant sectors like maritime.

Importance of innovators. Decarbonizing our way of life poses massive challenges. The sheer scale of the task ahead requires deep commitment and involvement of our largest and most visionary public, private, and non-profit institutions. Yet, as the history of past energy and technological transformations demonstrate, it is often the smaller companies (and talented individuals) who are behind the more innovative solutions that help drive momentum and create meaningful change. Widespread industry adoption of new operating practices typically only occurs after the demonstrated success of the early risk takers—and this is especially true in many traditional capital intensive industries.

While strict language on 45V would seem necessary to ensure that existing sources of renewable electricity are not simply diverted to large-scale hydrogen production (only to be replaced by electricity generated by more fossil fuels), we think that the current draft language will have an unintended stifling

effect on many smaller, innovative projects—projects that could otherwise make meaningful contributions to advancing technologies and commercializing solutions.

Sensible exemptions can promote innovation. Accordingly, we request that the Treasury Department consider well-defined exemptions that would allow smaller-scale projects that use 100% renewable power to access the PTC without a strict additionality requirement. As presently written, the language of 45V would render our promising project—and possibly others like it—commercially not viable, as it is simply not possible to achieve economies of scale in a smaller maritime-focused facility that utilizes hydroelectric power. And the prospect of competing in a marketplace where many of the larger, industrial-sized producers will be able to achieve a \$2-3 per kg cost reduction via the PTC would place smaller innovators at an ongoing structural cost disadvantage. Treasury staff are well-suited to understand how exemptions are best drawn to ensure that fully-green, smaller projects can benefit from the PTC while ensuring against possible misuse.

Green tech, hydrogen, and maritime. Maritime is widely recognized to be among the most challenging sectors to decarbonize.

Over the last two decades, Hornblower has played a leading role in successfully integrating green tech into our passenger vessel propulsion systems, including developing the first diesel-electric hybrid ferry and first fully-electric ferry, among other accomplishments. Our activities in hydrogen have included assisting with the construction and operationalization of the nation's first hydrogen ferry, and the permitting by the U.S. Coast Guard of a hydrogen fuel cell retrofit package for a passenger vessel.

One of the many issues which has dampened Hornblower's historic interest in hydrogen (as well as the interest of other maritime operators) is a lack of assured supply at the waterfront. This lack of ability to plan for future hydrogen supply led us to the concept of developing a hydrogen fueling station that could be located on the waterfront.

A hydrogen production and fueling station project. For over two years, Hornblower Energy has been leading a project to demonstrate the feasibility of producing, storing, and dispensing gaseous hydrogen in a maritime context on San Francisco Bay's waterfront. In addition to receiving funding and support from the Department of Energy's Office of Energy Efficiency and Renewable Energy's H2@Scale program, our team includes experts and companies from the private, non-profit, and public sectors. The project will use 100% greenhouse gas free hydroelectric power from Hetch Hetchy which is supplied by the San Francisco Public Utilities Commission and is currently under-utilized. By using high-voltage electricity (commonly available in America's ports) to create hydrogen, the station holds promise for replication at other ports across the country, especially at those ports where hydrogen distribution may prove challenging or otherwise distant (e.g., not participating in a selected HUB project).

Our project is small, yet important—small, in that expected hydrogen production is only 500 kg per day; yet important, in that because it is the first station of its kind, it promises to help map out important safety, operational, and regulatory guidelines, standards, and protocols that can support the use of gaseous hydrogen in maritime¹. Not only our own project, but future maritime projects stand to benefit from our current work.

¹ For example, the project team has been working closely with the U.S. Coast Guard, who have advised that there are no (or limited) relevant CFR's or other guidelines that the Coast Guard can currently rely on to review, approve,

But our project may not be able to move forward if we are unable to access the PTC. Simply put, making green hydrogen from under-utilized hydroelectric power is comparatively costly to both construct and produce (given the small scale, marinization requirements, and other factors). Having to further construct the equivalent of a 30-40 acre solar farm in order to meet strict additionality standards for the PTC is simply not possible. And, as previously mentioned, without an exemption, our station would be at a \$2-3 per kg structural cost disadvantage compared with larger operators who can more readily scale projects that qualify for the PTC.

We kindly ask that the Treasury Department consider incorporating well-defined, sensible exemptions or limits on the additionality requirements that would enable smaller-scale producers to access the PTC—doing so will promote an environment of innovation solutions across a myriad of use cases, including in challenging sectors like maritime.

and regulate our project, as existing CFRs were not drafted with hydrogen in mind. If our project moves forward, the Coast Guard will be able to develop new CFRs in conjunction with their detailed assessment and review of our plans, helping to establish a regulatory framework and pathway for future hydrogen suppliers and users.